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(54) **Angular velocity sensor and electronic device**

(57) A physical quantity sensor includes: a substrate; a first displacement member and a second displacement member disposed in a spatial plane on the substrate and having rotation shafts, respectively; fixed electrodes disposed on the substrate at positions opposed to the first displacement member and the second displacement member; a support member which supports the respective rotation shafts of the first displacement member and the second displacement member; fixing members which support the support member via a spring unit; and a driving unit which oscillates the support member in an oscillation direction. Each of the first displacement member and the second displacement member shifts in a direction perpendicular to the spatial plane around an axis of the corresponding rotation shaft. Each of the rotation shafts of the first displacement member and the second displacement member is disposed at a position shifted from the center of gravity of the corresponding displacement member. The shift direction of the rotation shaft of the first displacement member from the center of gravity of the displacement member is opposite to the shift direction of the rotation shaft of the second displacement member from the center of gravity of the second displacement member.

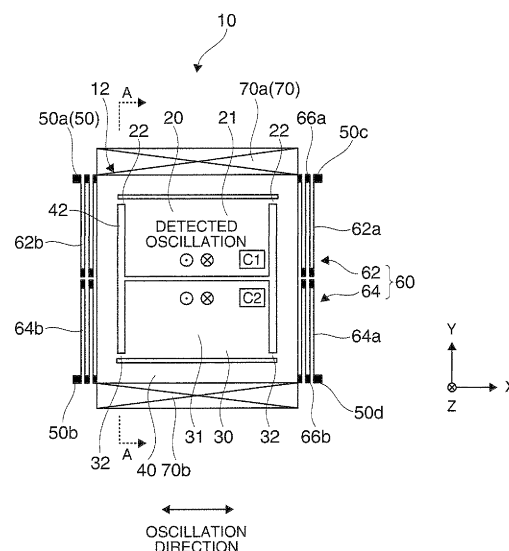


FIG. 1

**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2008/276706 A1 (HARTMANN BERNHARD [DE] ET AL) 13 November 2008 (2008-11-13) * paragraphs [0007], [0012], [0025], [0026] - [0030], [0040]; figures 1c, 2, 5 *	1-3,7,8	INV. G01C19/56 G01C19/5733 G01C19/5747
X	US 2010/037690 A1 (GUENTHNER STEFAN [DE] ET AL HARTMANN BERNHARD [DE] ET AL) 18 February 2010 (2010-02-18) * paragraphs [0077] - [0093], [0086]; figures 6-10 *	1-3,7,8	
			TECHNICAL FIELDS SEARCHED (IPC)
			G01C

INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.

Claims searched completely :

Claims searched incompletely :

Claims not searched :

Reason for the limitation of the search:

see sheet C

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EPO FORM 1503 03.82 (P04E07)

Place of search	Date of completion of the search	Examiner
The Hague	19 May 2014	Rocca, Simone
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		

**INCOMPLETE SEARCH
SHEET C**

Application Number

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Claim(s) completely searchable:
1-3

Claim(s) searched incompletely:
7, 8

Claim(s) not searched:
4-6

Reason for the limitation of the search:

The search has been carried out on the basis of claims 1-3 and 7-8 (when depending on claims 1-3), as indicated by the applicant as auxiliary request in the communication dated 15/04/2014, following the invitation pursuant Rule 62a(1) EPC.

In the main request the applicant argues that independent claims 1 and 4 relate to alternative solutions to a common problem, i.e. how to create oscillations in the displacement members.

The examiner is of the opinion that in this case it would have been possible and appropriate to cover these alternatives by a single claim (Rule 43(2)(c) EPC; GL F-IV, 3.2; T0056/01)

The applicant's attention is drawn to the fact that the application will be further prosecuted on the basis of subject-matter for which a search has been carried out and that the claims should be limited to that subject-matter at a later stage of the proceedings (Rule 62a(2) EPC).

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-05-2014

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82